

Joint Industry/Government Pipeline R&D Forum

**Office of Pipeline Safety
Research and Development
Projects Review**

December 11, 2003



The Office of Pipeline Safety research and development program

- OPS is sponsoring research and development projects focused on providing near-term solutions that will increase the safety, cleanliness, and reliability of the Nation's pipeline system



Three Major Project Areas

- Developing new technologies for leak detection and damage prevention
- Improving technologies for pipeline operation, monitoring, and control
- Improving pipeline materials.



Research & Development



■ Goals:

- ◆ Accelerate Delivery to Market of Technological Solutions to Pipeline Safety Problems
- ◆ Expand Stakeholder Involvement in R&D Planning
- ◆ Improve Availability of Research Results
- ◆ Better Serve Regulatory Needs – Near-term Focus
 - ◆ Damage Prevention and Leak Detection
 - ◆ Enhanced Pipeline Operations, Controls, and Monitoring
 - ◆ Improved Pipeline Material Performance
- ◆ R&D Web Site: <http://primis.rspa.dot.gov/rd>



Program Results Reported to Congress

- OPS will use a systematic process for evaluating the program's outcomes, using recognized best practices



Prevention

Digital Mapping of Buried Pipelines with a Dual Array System

Contract #: DTRS56-02-T-0005 Witten Technologies, Inc
COTR – Sam Hall

- Development of a non-invasive system for detecting, mapping and inspecting steel and plastic pipelines.



Prevention

High CP Potential Effects on Pipelines

Contract #: DTRS56-03-T-0004 CC Technologies Laboratories, Inc
COTR – James Merritt

- Develop a set of guidelines for pipeline operators,
- Enable operators to determine limiting cathodic protection potentials for a given steel metallurgy, coating type & thickness
- Mitigate possible hydrogen-induced damage & coating disbondment and/or blistering.



Prevention

An Assessment of Magnetization Effects on Hydrogen Cracking for Thick-Walled Pipelines

Contract #: DTRS56-03-X-0044

Colorado, School of Mines

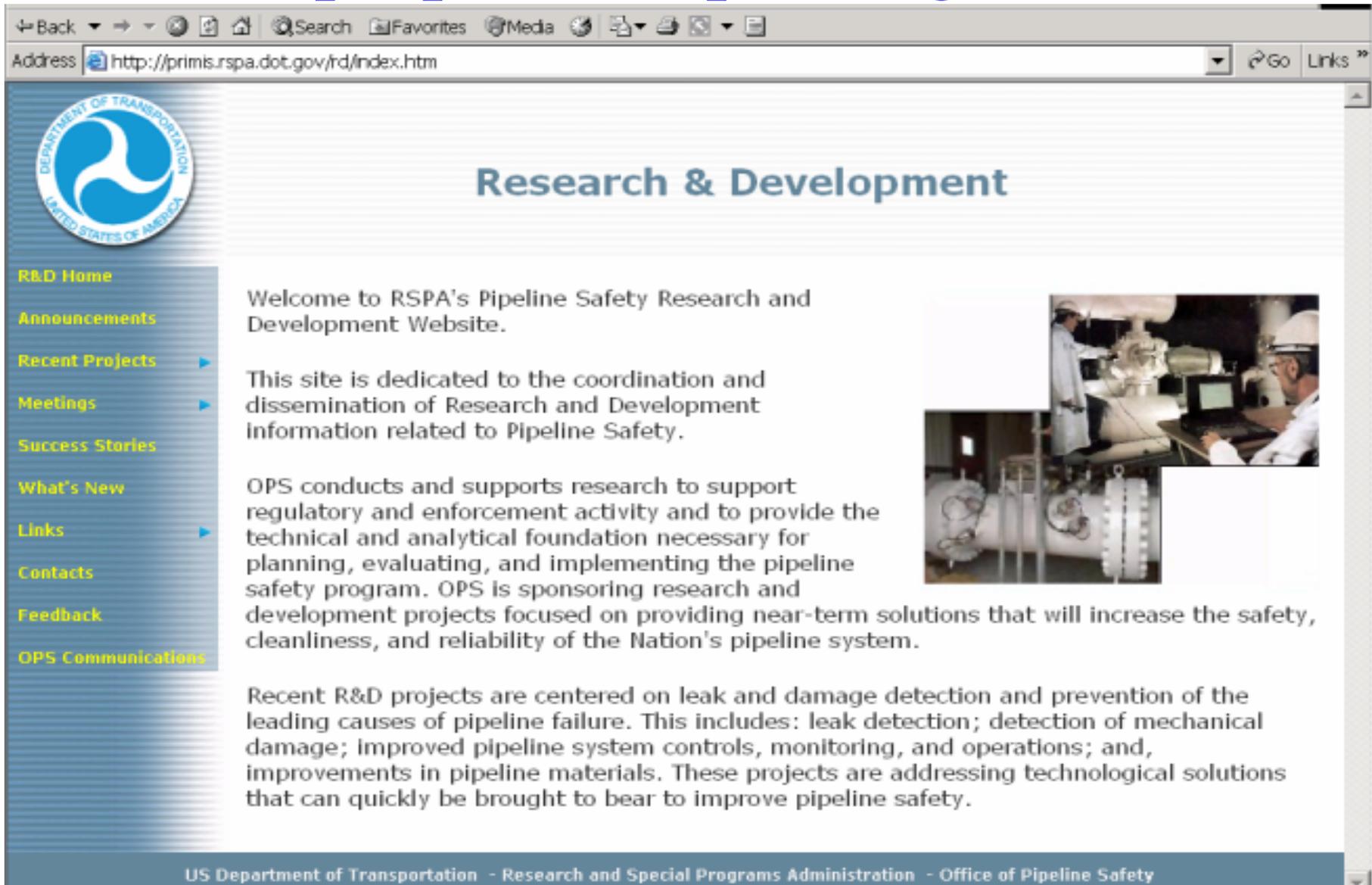
COTR – James Merritt

- Quantitatively measure increased hydrogen activity in thick walled, high strength steels
- Determine if caused by magnetization and,
- If increased level of diffusible hydrogen is deleterious to pipe strength.



R&D Web Site

<http://primis.rspa.dot.gov/rd>



The screenshot shows a web browser window with the address bar displaying <http://primis.rspa.dot.gov/rd/index.htm>. The page features the Department of Transportation logo on the left and a navigation menu with items like R&D Home, Announcements, Recent Projects, Meetings, Success Stories, What's New, Links, Contacts, Feedback, and OPS Communications. The main content area is titled "Research & Development" and contains a welcome message, a description of the site's purpose, a detailed paragraph about OPS research, and a list of recent R&D projects. Two photographs are included: one showing a person in a lab coat working with a large piece of equipment, and another showing a close-up of a pipeline component.

← Back → Search Favorites Media

Address <http://primis.rspa.dot.gov/rd/index.htm> Go Links



Research & Development

Welcome to RSPA's Pipeline Safety Research and Development Website.

This site is dedicated to the coordination and dissemination of Research and Development information related to Pipeline Safety.

OPS conducts and supports research to support regulatory and enforcement activity and to provide the technical and analytical foundation necessary for planning, evaluating, and implementing the pipeline safety program. OPS is sponsoring research and development projects focused on providing near-term solutions that will increase the safety, cleanliness, and reliability of the Nation's pipeline system.

Recent R&D projects are centered on leak and damage detection and prevention of the leading causes of pipeline failure. This includes: leak detection; detection of mechanical damage; improved pipeline system controls, monitoring, and operations; and, improvements in pipeline materials. These projects are addressing technological solutions that can quickly be brought to bear to improve pipeline safety.



US Department of Transportation - Research and Special Programs Administration - Office of Pipeline Safety